Immigrant Concentration and Domestic Migrant Dispersal: Is Movement to Nonmetropolitan Areas "White Flight"?*

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This article examines linkages between recent domestic out-migration from immigrant gateway metropolitan areas and nonmetropolitan migration gains, based on data of the 1990 census, 1996 Current Population Survey, and population estimates for the 1990–1996 period from the Bureau of Census. Our analysis of these data suggests that there is a mirror image of migration patterns between high immigration metropolitan area losses and nonmetropolitan area gains. This is especially evident in the West with the relationship between Los Angeles and San Francisco areas' losses on the one hand, and the region's nonmetropolitan gains on the other. While pre-elderly and elderly retirees have contributed to these nonmetropolitan gains, much of it is attributable to the destination choices of suburban-like populations—Whites with children, not college educated, and with lower incomes—that have been leaving high immigration metropolitan areas. This new, more dispersed form of "White flight" holds the potential for reinvigorating smaller, nonmetropolitan communities, but creating, as well, new demographic divisions across space. **Key Words: immigration, migration, race, nonmetropolitan.**

Introduction

The new "rural renaissance" has captured the attention of commentators and futurists (Kotkin 1996; Moynihan 1996), as well as demographers. In contrast to the 1970s' renaissance which resulted largely from the downsizing of urban manufacturing jobs and an OPEC-induced demand for oil, the current version appears to be more permanent (Frey 1995a). Changes in telecommunications are helping to diversify many nonmetropolitan economies so that they may now serve as viable locations for employers and residents in search of less congestion, lower costs, or an improved quality of life (Frey and Johnson, forthcoming).

This new nonmetropolitan resurgence is occurring at the same time that new waves of immigrants continue to concentrate in traditional large gateway metropolises that are no longer attracting as many native-born domestic migrants (Frey 1996a). We identify ten high immigration metropolitan areas which collectively attracted two-thirds of U.S. immigrants over the 1985–1996 period, while containing less than 30% of the entire U.S. population (Frey and Liaw, forthcoming). Employment prospects and residential amenities draw large numbers of domestic migrants away from these areas, especially from Los Angeles and New York, to newer, fast-growing communities of all sizes.

It is noteworthy, then, that the growing nonmetropolitan areas in the 1990s are located in western states which surround California's high immigration metropolitan areas; and in southeast states which are favorite destinations for New York metropolitan expatriates (Fuguitt and Beale 1995; Johnson and Beale 1995). It suggests that these nonmetropolitan gains are linked, perhaps in large part, to out-migration from the immigrant gateway metropolises.

Our previous research suggests that an important part of this link may be associated with an out-migrant population that is uniquely associated with high immigration metropolitan areas—non-White, non-college educated, lower income families with children (Frey 1995b, 1996b; Liaw and Frey 1996; Frey and Liaw, forthcoming). While in the past this demo-

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graphic profile was more likely to fit local, intrasuburban movers than migrants who leave metropolitan areas altogether, an accentuated out-migration of this group appears uniquely associated with high immigration metropolitan areas over the most recent decade. Furthermore, unlike the case of professionals, or college graduates, whose in- and out-migration patterns tend to follow the cycles of regional economic "booms and busts," high immigration regions continue to lose these suburban-like populations in both bad times (i.e., the late 1980s in Texas and early 1990s in California) and good (e.g., early 1990s in Texas and late 1990s in California). Our statistical analyses confirms that when other economic and amenity variables are taken into account, residing in a high immigration metropolitan area exerts a significant independent effect on the out-migration of this population.

This out-migration of a more suburban-like population from high immigration metropolitan areas appears to be persisting and may draw from a number of causes: job competition from the continued influx of low-skilled immigrants; perceived higher social costs, or disruption associated with rapid demographic change; or perhaps racial prejudice arising from an increased racial and ethnic diversity in these areas. The fact that it persists, through rolling recessions and the economy's upturns and downturns, suggests that this population may be an important source of non-metropolitan gains. Because our previous research shows a significant immigration-region "push" effect on this population (Liaw and Frey 1996; Frey and Liaw, forthcoming), and because it takes on the characteristics of earlier suburbanward migrants, we will use the term "flight" population to characterize these particular migrants.

This paper presents evidence that suggests the "flight" population is prone to select nonmetropolitan destinations, and can contribute significantly to the new "rural renaissance," that emerged during the 1990s. The contribution of this group to nonmetropolitan growth contrasts sharply with the stereotypic characterizations of rural migrants: self-employed professionals who move to high amenity locations and telecommunicate with the clients; the "footloose" retiree population; or "return migrant" urban Blacks to family or birthplace origins in the nonmetropolitan south. The link between the "flight" population and nonmetropolitan growth suggests that movement to small towns may be becoming a more pervasive, middle class phenomenon that could constitute a viable alternative to further suburbanization.

The first section of this article presents an overview of migration dynamics associated with the post-1990 nonmetropolitan gains by employing Bureau of the Census estimates to track the separate contributions of immigration and domestic migration to metropolitan and nonmetropolitan growth. The section that follows compares nonmetropolitan destination patterns for different demographic groups with particular emphasis on the "flight" population, utilizing data from the 1996 Current Population Survey, and special migration tabulations from the 1990 census. The next section examines these migration patterns from the perspective of nonmetropolitan areas and how their growth accrues from the "flight" population. The concluding section suggests that a new, more dispersed form of the old suburban "White flight" is emerging, and how separate immigration and domestic migration patterns may be leading to increased race-ethnic and other demographic disparities between metropolitan and nonmetropolitan areas.

Metropolitan and Nonmetropolitan Migration in the 1990s

Population estimates for the 1990–1996 period (U.S. Bureau of the Census 1997) permit us to compile statistics that reveal how net international migration and net domestic migration contribute to metropolitan and nonmetropolitan change over the 1990s.[1] The migration statistics in Table 1 confirm the disparity that exists between the ten high immigration metropolitan areas that gain most or all of their populations from immigration and other metropolitan areas whose gains accrue largely from domestic migration. With Dallas and Houston being the only two exceptions, each of the former showed net losses of domestic migrants, with Los Angeles and New York losing more than 1.3 million domestic migrants each over the six-year period. In contrast, the metropolitan areas that gain the most domestic migrants ("high domestic migration" metropolitan areas) show relatively small gains from immigration, with the exception of Dallas which could have been included on each list.

We do not claim that all, or even most, of the domestic out-migration from the high immigration metropolitan areas represents a response to immigration. Much of it represents a response to growing employment opportunities in less-costly environments, as well as employment declines, unrelated to immigration, in areas such as Los Angeles, San Diego, and San Francisco in the early 1990s. Indeed, new industrial employment gains in Houston and Dallas during the 1990s turned around their oil-related domestic migration declines from the late 1980s. Native-born residents with college educations in these areas, and in labor segments that are not in direct competition with large numbers of immigrants, show migration patterns that are more closely tied to the region's general economies. Nonetheless, evidence compiled for metropolitan areas and states with consistently high immigration in the late 1980s and early 1990s, but shifting local economic conditions, shows a persistent net out migration for less-educated residents who are most directly competing with immigrants (Frey 1996b; Liaw and Frey 1996; Frey and Liaw, forthcoming).

The migration estimates, shown in Table 2, make plain that domestic migration out of the large high immigration metropolises of New York, Los Angeles, and San Francisco is fairly pervasive across both city and suburban counties. Among the 29 counties in the New York metropolitan region (Consolidated Metropolitan Statistical Area) depicted in Figure 1, only eight counties, located on the periphery of the region, show a domestic migration gain. While the county units are much larger in the California metropolitan areas, a similar process is evident. Only Riverside County, of the five in the Los Angeles region, reflected a net domestic migration gain. Only Napa, Sonoma, and Contra Costa counties in the ten-county San Francisco region show domestic migration gains. Clearly, domestic migrants are being drawn from the suburbs as well as the central cities of these large regions.

The linkage of this migration to nonmetropolitan growth is suggested in Table 3 and Figure 2 which indicate that the rural renaissance of the 1990s is very much a domestic migration phenomenon. The primary contributors to this

Table 1 *High Immigration and High Domestic Migration Metros, 1990–96*

	Contribution to 1990–96 Change**		Race-Ethnic Composition***			
Metro Area*	Immigration	Domestic Migration	White	Black	Hispanic	Asian
HIGH IMMIGRATION METROS						
Los Angeles CMSA	939,438	-1,305,950	46%	9%	36%	11%
New York CMSA	930,783	-1,331,740	62%	19%	16%	6%
San Francisco CMSA	311,092	-303,615	57%	9%	17%	17%
Miami CMSA	232,528	-28,455	45%	19%	36%	2%
Chicago CMSA	224,630	-339,470	65%	19%	12%	4%
Washington DC CMSA	165,781	-121,675	66%	26%	5%	5%
Houston CMSA	148,101	51,286	56%	18%	22%	4%
Dallas CMSA	109,948	114,723	69%	14%	14%	3%
San Diego MSA	108,278	-182,216	62%	7%	23%	10%
Boston NECMA	95,249	-180,645	87%	6%	5%	3%
HIGH DOMESTIC MIGRATION METROS						
Atlanta MSA	49,812	319,100	70%	26%	2%	2%
Las Vegas MSA	19,324	259,402	75%	9%	12%	4%
Phoenix MSA	43,581	239,096	74%	4%	18%	2%
Portland CMSA	34,500	157864	88%	3%	5%	4%
Denver CMSA	31,977	136,522	79%	5%	13%	3%
Austin MSA	16,163	111,837	66%	10%	23%	3%
Seattle CMSA	52,797	107735	84%	5%	3%	7%
Raleigh MSA	9,139	105,490	72%	24%	2%	2%
Tampa MSA	23,889	93,376	81%	10%	8%	1%
Charlotte MSA	8,952	91,423	77%	20%	1%	1%

* *The metropolitan area definitions are consistent with Office of Management and Budget definitions of CMSAs, MSAs and NECMA counterparts of June 30, 1995. Official names are abbreviated.*

** *Net Immigration and Net Domestic Migration compiled from postcensal estimates prepared by U.S. Census Bureau (see footnote 1).*

*** *Compiled from 1994 estimates prepared by the U.S. Census Bureau (Whites pertain to Non-Hispanic Whites).*

Table 2 *Immigration and Domestic Migration Components, 1990–96, Counties within Los Angeles, San Francisco, and New York Regions*

Metropolitan Region* County	PMSA**	Immigration	Domestic Migration	1996 Population
Los Angeles-Riverside-Orange County, CA CMSA				
Los Angeles County, CA	Los Angeles-Long Beach	658,953	**−1,177,810**	9,127,751
Riverside County, CA	Riverside-San Bernardino	40,398	92,958	1,417,425
San Bernardino County, CA	Riverside-San Bernardino	41,774	**−19,125**	1,598,358
Orange County, CA	Orange County, CA	171,157	**−169,262**	2,636,888
Ventura County, CA	Ventura, CA	27,156	**−32,711**	714,733
San Francisco-Oakland-San Jose, CA CMSA				
San Francisco County, CA	San Francisco, CA	62,415	**−58,136**	735,315
San Mateo County, CA	San Francisco, CA	35,397	**−31,704**	686,909
Marin County, CA	San Francisco, CA	5,892	**−9,269**	233,230
Alameda County, CA	Oakland, CA	54,915	**−82,621**	1,328,139
Contra Costa County, CA	Oakland, CA	22,349	8,534	881,490
Santa Clara County, CA	San Jose, CA	102,000	**−111,408**	1,599,604
Santa Cruz County, CA	Santa Cruz-Watsonville, CA	8,917	**−13,964**	237,821
Sonoma County, CA	Santa Rosa, CA	7,477	9,247	420,872
Solano County, CA	Vallejo-Fairfield-Napa, CA	8,813	**−14,585**	365,536
Napa County, CA	Vallejo-Fairfield-Napa, CA	2,917	291	116,512
New York-Northern New Jersey-Long Island, NY-NJ-CT-PA CMSA				
Bronx County, NY	New York, NY	90,747	**−177,463**	1,193,775
Kings County, NY	New York, NY	222,545	**−375,263**	2,273,966
New York County, NY	New York, NY	117,499	**−108,917**	1,533,774
Queens County, NY	New York, NY	172,209	**−222,629**	1,980,643
Richmond County, NY	New York, NY	7,343	**−5,323**	398,748
Rockland County, NY	New York, NY	7,846	**−8,277**	278,136
Westchester County, NY	New York, NY	25,767	**−37,218**	893,412
Putnam County, NY	New York, NY	376	1,754	90,983
Nassau County, NY	Nassau-Suffolk, NY	28,247	**−50,031**	1,303,389
Suffolk County, NY	Nassau-Suffolk, NY	18,058	**−40,663**	1,356,896
Fairfield County, CT	New Haven, CT NECMA**	19,312	**−45,894**	833,761
New Haven County, CT	New Haven, CT NECMA**	7,775	**−40,714**	794,672
Bergen County, NJ	Bergen-Passaic, NJ	27,164	**−24,045**	846,498
Passaic County, NJ	Bergen-Passaic, NJ	28,840	**−39,679**	464,833
Hudson County, NJ	Jersey City, NJ	42,054	**−67,048**	550,789
Essex County, NJ	Newark, NJ	32,854	**−84,461**	755,089
Union County, NJ	Newark, NJ	17,848	**−30,067**	497,281
Morris County, NJ	Newark, NJ	9,568	**−138**	449,218
Sussex County, NJ	Newark, NJ	695	2,714	141,308
Warren County, NJ	Newark, NJ	421	2,134	97,574
Middlesex County, NJ	Middlesex-Somerset-Hunterdon, NJ	25,214	**−24,727**	702,458
Somerset County, NJ	Middlesex-Somerset-Hunterdon, NJ	7,806	6,832	269,902
Hunterdon County, NJ	Middlesex-Somerset-Hunterdon, NJ	783	5,128	118,737
Monmouth County, NJ	Monmouth-Ocean, NJ	6,854	11,283	591,182
Ocean County, NJ	Monmouth-Ocean, NJ	1,808	37,606	474,102
Mercer County, NJ	Trenton, NJ	6,959	**−12,956**	330,226
Dutchess County, NY	Dutchess County, NY PMSA	1,831	**−7,681**	262,675
Orange County, NY	Newburgh, NY-PA	2,287	**−4,575**	324,422
Pike County, PA	Newburgh, NY-PA	73	8,578	38,139

* *Defined as CMSAs (Consolidated Metropolitan Statistical Areas).*
** *PMSA (Primary Metropolitan Statistical Area).*

phenomenon seem to be high immigration metropolitan areas. Nationwide, these areas lost 3.6 million domestic migrants to other metropolitan areas or to nonmetropolitan areas.[2] Gains for most other metropolitan areas and nonmetropolitan areas are highest in the South and West, and the highest *rate of gain* among all of these categories is registered for western, nonmetropolitan areas which show a domestic migration growth rate of over 7% for the six-year period—similar in magnitude to the loss rate for high immigration metropolitan areas in the West.

Annual rates are shown for individual years between 1990 and 1996 for selected metropoli-

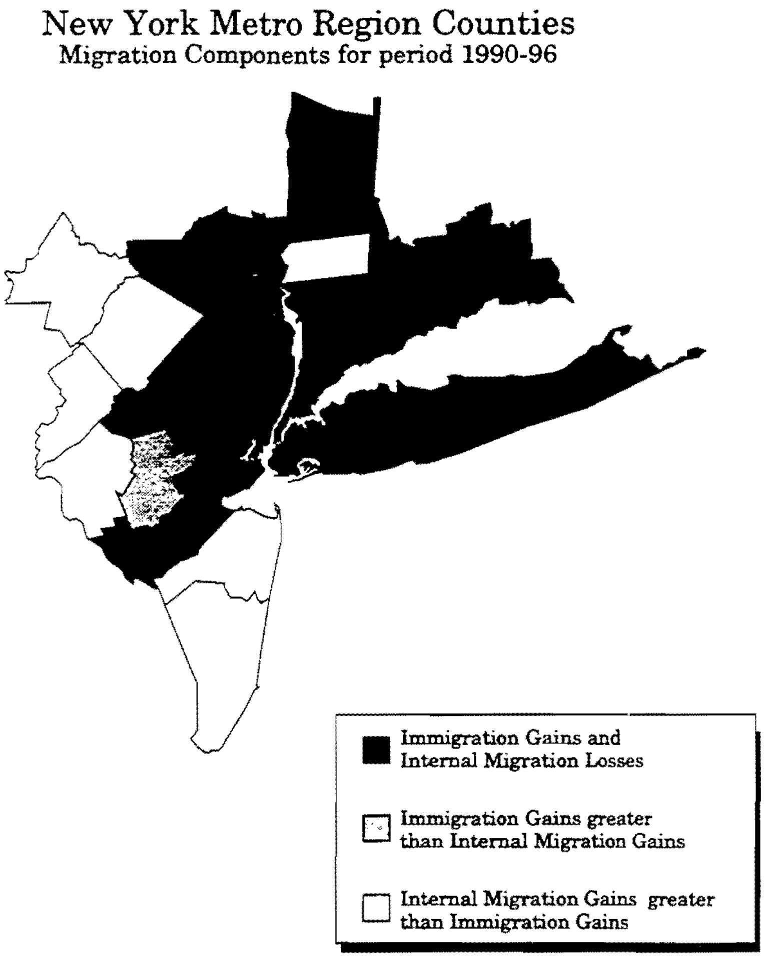
New York Metro Region Counties
Migration Components for period 1990-96
Immigration Gains and Internal Migration Losses
Immigration Gains greater than Internal Migration Gains
Internal Migration Gains greater than Immigration Gains

Figure 1: *New York metro region counties: Migration components for period 1990–1996.*

tan and nonmetropolitan areas (see Figs. 3 and 4). Nationally, the domestic migration gain rate for nonmetropolitan areas achieved a high level in 1992–1993 through 1994–1995, the three years in which the domestic migration loss rate for high immigration metropolitan areas was also at a high level. The mirror relationship between domestic migration losses for high immigration metropolitan areas and domestic migration gains for nonmetropolitan areas is even more apparent in the West for this period. Between 1994–1995 and 1995–1996, Los Angeles, San Francisco, (and San Diego, which is not shown in the figure) each registered a noticeable decline in their domestic migration loss rates. At the same time, the domestic migration gains for nonmetropolitan areas in the West also dipped considerably. These patterns suggest a linkage between the two rates. Although the overall net migration loss levels for Los Angeles, San Francisco, and San Diego may also reflect segments of the labor force which are not impacted by immigration, our earlier analysis suggests a consistent level of net out-migration for less-skilled and low-income native-born residents from these metropolitan areas during both good and bad times (Frey 1996b; Frey and Liaw, forthcoming).

From the nonmetropolitan side, it is useful to look at the locations of the fastest-growing nonmetropolitan counties and their growth rates. Among the 2,300 nonmetropolitan counties in the United States, there are 40 with populations over 5,000 that are growing the fastest (Table 4). These 40 counties have very high net domestic migration rates, ranging from 22% to 60% over the six-year period. And they tend to be clustered in Texas, the mountain states (especially Colorado) and a few southeast states. It should be noted here, as in the previous table, that immigration contributes marginally to the overall migration gains for these fast-growing nonmetropolitan areas. These areas also have in common with other gaining nonmetropolitan areas racial compositions that are largely White. Of these 40 counties, 28 are at least 85% non-

Table 3 *1990–96 Migration Components for Metropolitan and Nonmetropolitan Areas within Regions*

Geographic Category	1996 Population (Millions)	Number of Migrants: Immigration	Number of Migrants: Domestic Migration	Rates: Immigration	Rates: Domestic Migration
NORTHEAST					
High Immigration Metro Areas	25.6	1,026,032	-1,512,385	4.08	-6.01
Other Metro Areas	20.5	155,414	-528,665	0.76	-2.59
Nonmetro Areas	5.4	11,613	12,799	0.22	0.24
MIDWEST					
High Immigration Metro Areas	8.6	224,630	-339,470	2.72	-4.11
Other Metro Areas	36.9	204,030	-197,544	0.57	-0.56
Nonmetro Areas	16.5	30,245	277,758	0.19	1.74
SOUTH					
High Immigration Metro Areas	19.5	656,358	15,879	3.69	0.09
Other Metro Areas	50.1	476,065	1,701,569	1.04	3.72
Nonmetro Areas	23.5	96,233	722,591	0.43	3.25
WEST					
High Immigration Metro Areas	24.7	1,358,808	-1,791,781	5.81	-7.67
Other Metro Areas	25.8	490,825	1,123,219	2.17	4.97
Nonmetro Areas	8.0	86,979	516,030	1.23	7.30
TOTAL U.S.					
High Immigration Metro Areas	78.5	3,265,828	-3,627,757	4.38	-4.87
Other Metro Areas	133.4	1,326,334	2,098,579	1.07	1.69
Nonmetro Areas	53.4	225,070	1,529,178	0.45	3.03

Rates are expressed per 100 of 1990 area population.

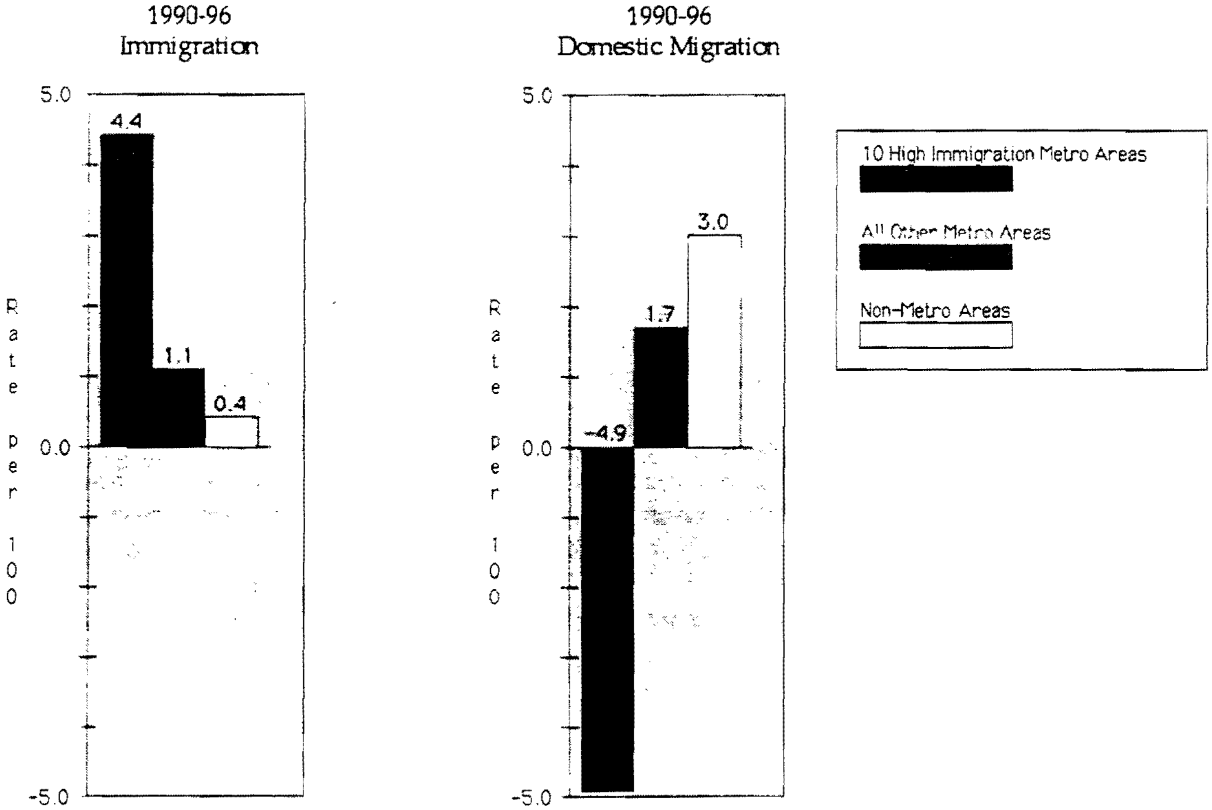

Figure 2: *Rates pertain to 1990–96 Net Immigration and Net Domestic Migration expressed per 100 of area 1990 population.*

Hispanic White; while the more diverse counties tend to be located in the Southwest (with large Hispanic populations) or in the Southeast (with large Black populations).

In sum, this review of the 1990–1996 estimates indicates that domestic migration is redistributing the population away from high immigration metropolitan areas toward other

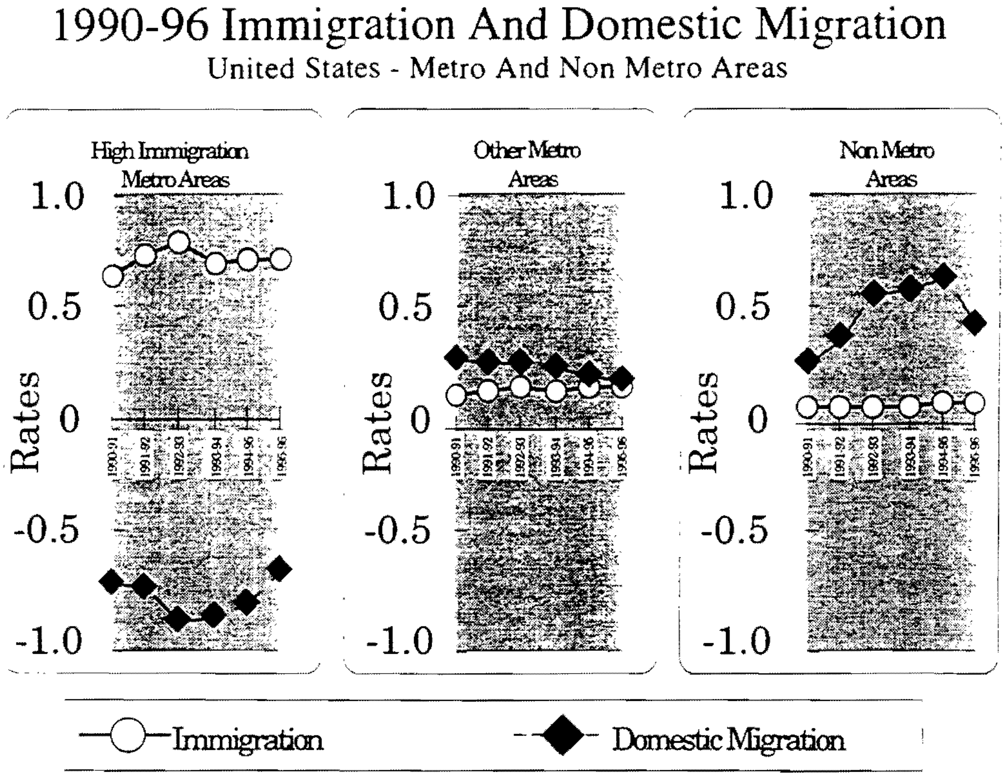

Figure 3: *Rates pertain to Annual Net Immigration and Net Domestic Migration expressed per 100 beginning year population.*

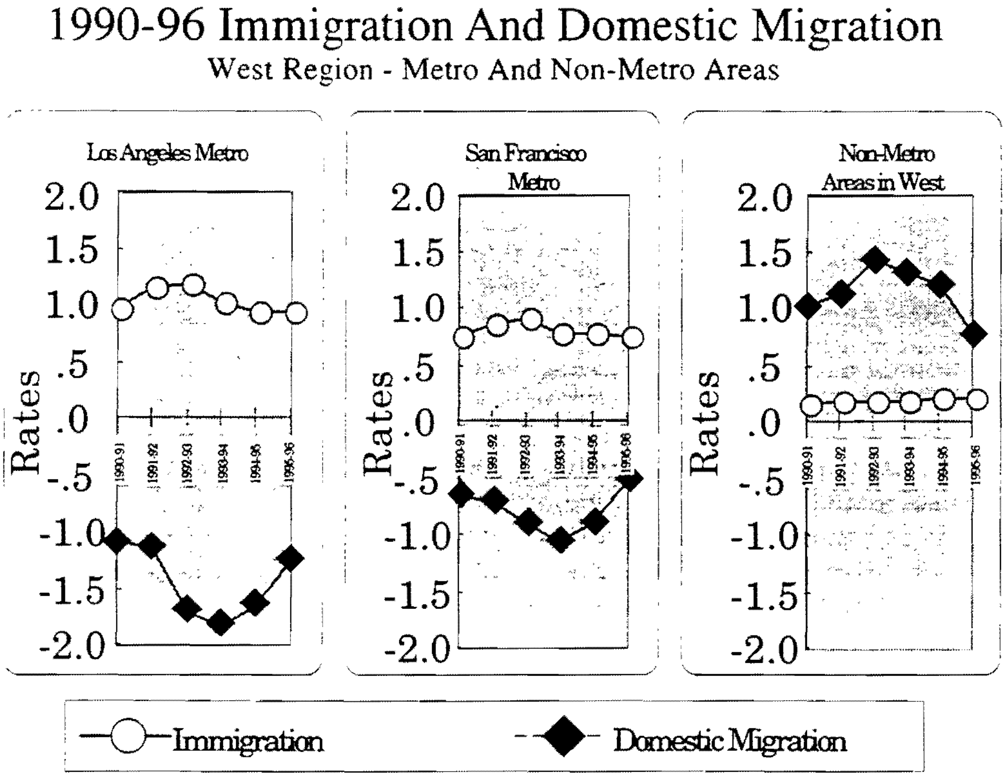

Figure 4: *Rates pertain to Annual Net Immigration and Net Domestic Migration expressed per 100 beginning year population.*

Table 4 *Nonmetropolitan Counties with Highest Domestic Migration Rates, 1990–96**

	Rate				
Rank	Domestic Migration	Immigration	County	State	Percent Non-Hispanic White**
1	60.3	0.4	Elbert County	CO	96.3%
2	54.5	0.1	Park County	CO	95.7%
3	45.4	1.0	Summit County	UT	96.6%
4	44.5	0.8	Polk County	TX	79.1%
5	44.1	0.1	Teller County	CO	96.0%
6	43.9	0.3	Washington County	UT	95.8%
7	43.0	0.7	Archuleta County	CO	73.4%
8	34.7	0.0	Stone County	MO	98.4%
9	33.8	0.4	Bandera County	TX	86.9%
10	32.4	0.1	Ravalli County	MT	96.7%
11	31.4	0.2	Kootenai County	ID	96.8%
12	31.3	1.1	Lyon County	NV	87.2%
13	30.8	0.1	Dawson County	GA	98.6%
14	30.3	0.1	Fremont County	CO	87.1%
15	29.9	0.3	Gilchrist County	FL	88.8%
16	29.7	0.9	Burnet County	TX	86.5%
17	29.4	0.3	Taney County	MO	98.2%
18	29.2	1.5	Kendall County	TX	81.3%
19	29.0	0.2	Yavapai County	AZ	90.7%
20	28.9	0.2	Childress County	TX	78.6%
21	28.2	0.6	Blanco County	TX	83.4%
22	27.5	0.2	Torrance County	NM	60.0%
23	27.4	1.2	Summit County	CO	95.8%
24	26.8	0.0	Valley County	ID	96.8%
25	26.3	0.2	Deschutes County	OR	96.0%
26	25.0	0.2	Walton County	FL	89.4%
27	24.8	0.2	Bonner County	ID	97.4%
28	23.9	0.3	Mason County	WA	91.4%
29	23.8	0.8	Medina County	TX	52.3%
30	23.7	0.1	Union County	GA	99.1%
31	23.3	3.7	Eagle County	CO	84.6%
32	23.0	0.7	Lampasas County	TX	82.4%
33	23.0	0.0	Wakulla County	FL	84.4%
34	22.9	0.3	Pender County	NC	67.8%
35	22.9	0.3	Matanuska-Susitna Borough	AK	91.4%
36	22.8	1.6	Douglas County	NV	89.3%
37	22.8	0.4	Jefferson County	WA	93.6%
38	22.6	0.2	Tyler County	TX	86.3%
39	22.4	0.4	Gilmer County	GA	98.5%
40	22.3	0.7	Lincoln County	NM	69.8%

Rates are expressed per 100 of 1990 county population.

* *Nonmetropolitan counties with populations exceeding 5,000 in 1990.*

** *Compiled from 1994 estimates prepared by the U.S. Census Bureau.*

metropolitan areas and nonmetropolitan areas, at the same time that immigration continues to concentrate, in large measure, in a few port-of-entry metropolitan areas. The latter areas are losing domestic migrants not only in their cities but also throughout their regions. An examination of individual yearly rates over the first six years of the 1990s suggests a mirror image pattern between domestic migration loss rates in high immigration metropolitan areas and domestic migration gain rates in nonmetropolitan areas. Yet these overall patterns do not provide information on the social and demographic selectivity of this movement. We turn to this matter next.

Who Is Moving to Nonmetropolitan Destinations?

We now examine what kinds of out-migrants from metropolitan areas are selecting nonmetropolitan destinations. To begin, we want to determine whether the unique pattern of domestic out-migration from high immigration metropolitan areas is contributing to the new nonmetropolitan revival. As indicated above, our previous research identified a unique "flight" population from these areas—largely White, not college-educated, with middle and lower earnings, and with children (Frey 1995b; Frey and Liaw, forthcoming). Demographically, they have more in common with local intra-suburban movers, despite the fact that they are leaving the metropolitan area entirely.

The question is: Are these "flight" out-migrants more likely to select nonmetropolitan destinations than those with other demographic characteristics? The data to answer such a question are not easily obtained for the period after the 1990 census. It is possible to recompile the 1996 Current Population Survey data for metropolitan out-migrants who moved across state lines during the previous year in order to get an indication of nonmetropolitan selection patterns.[3] Data in Table 5 provide the results of this analysis and show that, indeed, the profile of movers who select nonmetropolitan destinations quite closely reflects that of the "flight" out-migrants. That is, nonmetropolitan destinations are pronounced for Whites and among the White population: children under age 15, persons in poverty, and persons without college degrees. The small number of Hispanics who leave metropolitan areas are also prone to select nonmetropolitan, largely family destinations. For the most part, the kinds of people who are most likely to out-migrate from high immigration metropolitan areas are also more likely to select nonmetropolitan destinations.

A more detailed analysis of out-migrants from specific metropolitan areas requires the kind of large data sets that are only available with decennial censuses. For this reason we conduct more specific analysis employing data from the 1990 census based on the special "residence 5-years ago question."[4] With the nonmetropolitan population growth resurgence only coming into its own in the early 1990s (Johnson and Beale 1995; Frey 1996b; Frey and Johnson, forthcoming), we identified a set of fast-growing nonmetropolitan counties which showed the highest rates of domestic migration gain (over 7%) over the 1985–1995 period. While the 1990 census migration data only pertain to the first half of this period, they give us some sense of how migration patterns are affecting the fast-growing versus other nonmetropolitan counties over the entire period. In other words, we are assuming that the conditions in counties that grew rapidly over the 1985–1995 period were already emerging during the first half of the interval. These fast-growing counties represent 504 of the total 2,300 nonmetropolitan counties in the United States. They house approximately 25% of the nonmetropolitan population. About seven in ten are over 85% White. Compared to all nonmetropolitan counties, they are disproportionately located in the southeast states, and in the West.

Table 6 allows us to examine nonmetropolitan destination selections of native-born out-migrants from four individual high immigration metropolitan areas (Los Angeles, San Francisco, New York, and Chicago) as well as from all ten high immigration metropolitan areas combined. The table shows what percent of the out-migrants in different demographic groups select fast-growing nonmetropolitan destinations and

Table 5 *Percent Selecting Nonmetropolitan Destinations among Inter-state Out-Migrants from Metropolitan Areas 1995–96**

Population Group	Percent Selecting Nonmetropolitan	Population Group	Percent Selecting Nonmetropolitan
Race-Ethnicity		**Whites-Education**	
White	18	HS or less	22
Black	12	Some College	17
Asian/Other Races	13	College Grad	9
Hispanic	24		
Whites-Age		**Whites-Poverty Status**	
Under 15	25	Poverty	32
15–24	18	Non Poverty	16
25–34	15		
35–44	15		
45–54	15		
55–64	26		
65+	17		

**Destinations of 1995–96 inter-state out-migrants from metropolitan areas.*
Source: Public Use Microfile of March 1996 Supplement, Current Population Survey, U.S. Bureau of the Census.

other nonmetropolitan destinations. A pervasive pattern across all metropolitan areas is a greater tendency for Whites to select fast-growing nonmetropolitan area destinations. The tendency for Whites to select other nonmetropolitan destinations is somewhat less distinct. However, a very pervasive pattern, even more consistent here than in the Current Population Survey data, is the stronger preference for nonmetropolitan destinations for the White migrants with lower education. This tends to be true for both migrants selecting fast-growing metropolitan areas and those who select other nonmetropolitan areas.

Both Black and Hispanic out-migrants from Los Angeles and San Francisco, although smaller-sized groups, select other nonmetropolitan destinations at a similar rate to Whites. Black out-migrants from New York, Chicago, and the combined group of ten high immigration metropolitan areas are more likely to select other nonmetropolitan destinations (largely in the South) than is the case for Whites. For them, this movement may represent more of a "return migration" to familiar friends and family in rural Southern communities, rather than newly developing, nonmetropolitan communities (Cromartie and Stack 1989; Johnson and Roseman 1990).

The destination selection patterns for Whites by age and by poverty status reveal some unexpected findings. Out-migrants with children (under 14), as expected, show a higher tendency to select nonmetropolitan destinations—both fast-growing and "other." Among the pre-elderly (aged 55–64) and elderly (aged 65+), however, the tendency is more focused toward selecting fast-growing nonmetropolitan destinations. The poverty status distinction reveals another difference in the destination selection toward fast-growing and other nonmetropolitan counties. That is, the only clear distinction between White poverty and White non-poverty out-migrants is the stronger tendency of the former to select "other" nonmetropolitan destinations. This suggests that at least some of the "flight" out-migrants of high immigration metropolitan areas are not relocating in the fast-growing nonmetropolitan counties, but largely to other counties. In order to generalize further from the detailed census results, we conduct a multivariate analysis designed to answer two questions: Are there distinct demographic attributes associated with selecting a metropolitan versus nonmetropolitan destination? Are there distinct demographic attributes associated with selecting fast-growing versus other nonmetropolitan destinations?

This analysis is based on the 1990 census data for out-migrants from 16 large metropolitan areas that include eight high immigration metropolitan areas (Los Angeles, New York, San Francisco, Chicago, Miami, Washington D.C., Houston, Dallas), five high domestic migration metropolitan areas (Atlanta, Phoenix, Seattle, Tampa, Orlando), and three other metropolitan areas located in the Midwest that have relatively low growth levels (Detroit, Cleveland, Pittsburgh). The demographic attributes to be evaluated include education attainment, poverty status, race-ethnicity, and age. In addition to including two dummy variables to distinguish the three "Types of Origins," we also include in the model another geographic variable, "Same as Origin," to denote whether or not a destination is located in the same region as the origin metropolitan area. One limitation of this analysis is its restriction to persons aged 25 and above. This is because we wanted to include all the independent variables simultaneously: including education attainment requires us to restrict this analysis to persons aged 25 and above (for whom education attainment is, mostly, completed).

The model we estimate is a logit model of a migrant's destination choice (see Liaw and Ledent 1987; Liaw and Frey, forthcoming). To answer the two questions posed above we estimate separately the choice of a metropolitan destination as opposed to a nonmetropolitan destination (among all out-migrants); and the choice of a fast-growing nonmetropolitan destination versus another nonmetropolitan destination (among those only choosing a nonmetropolitan destination). Our purpose is to identify the most important social and demographic attributes associated with each decision. Again, we are interested in discovering whether the demographic attributes associated with the "flight" population—identified in previous research as less-educated, low-income Whites—were associated with selecting a nonmetropolitan destination.

Table 6 *Percent Selecting "Fast Growing"* and Other Nonmetropolitan Destinations Among All Native Born Out-Migrants from Selected Areas, 1985–90*

Population Group	Los Angeles Percent Selecting Fast Growing Nonmetro	 Other Nonmetro	San Francisco Percent Selecting Fast Growing Nonmetro	 Other Nonmetro	New York Percent Selecting Fast Growing Nonmetro	 Other Nonmetro	Chicago Percent Selecting Fast Growing Nonmetro	 Other Nonmetro	10 High Immigrant Metros Percent Selecting Fast Growing Nonmetro	 Other Nonmetro
Race-Ethnicity										
White	8	9	10	7	6	10	7	15	9	12
Black	4	8	5	6	5	13	3	17	6	13
Hispanic	5	8	7	6	3	7	3	11	5	10
Asian	4	4	4	2	2	7	2	5	4	6
Whites-Age										
5-14	8	10	9	8	7	11	6	17	9	14
15-24	5	9	5	7	4	12	8	14	8	13
25-34	6	7	7	7	4	9	4	12	7	11
35-44	7	8	9	7	5	10	6	13	8	11
45-54	9	9	12	8	6	10	7	16	10	13
55-64	13	10	21	10	9	9	15	19	15	13
65+	10	9	17	8	7	7	11	17	12	12
Whites-Education										
Less than H.S.	11	12	17	11	8	12	12	28	14	17
H.S. Grad	10	11	15	9	8	10	10	19	12	14
Some College	8	8	11	8	6	10	7	14	9	11
College Grad	5	5	6	5	4	7	4	8	6	8
Whites-Poverty Status										
Poverty	9	13	9	11	6	14	10	21	11	17
Non Poverty	7	8	10	7	6	10	7	14	9	12

Source: Special 1990 U.S. Census Migration Tabulations compiled by the authors.

**Fast Growing Nonmetropolitan Counties, registered a net domestic migration rate exceeding 7% over the 1985–95 period.*

Table 7 *Logit Models for Destination Choices for Native-Born Out-Migrants (Ages 25+) from Selected Large Metros in 1985–90*

Explanatory Variable	Selected Metro over Nonmetro Destination			Select Fast-Growing Nonmetro over other Nonmetro Destination		
	Coef	(T)	Contribution-Rho-Squared (a)	Coef	(T)	Contribution-Rho-Squared (a)
Constant Term	1.40	54.2		–1.14	–35.7	
1. **RACE**			0.0010			0.0027
White	**	**		**	**	
Black	0.15	6.3		–0.35	–7.7	
Asian	0.54	5.4		0.62	3.7	
Hispanic	0.35	8.7		–0.45	–5.8	
2. **AGE**			0.0004			0.0024
25-34	**	**		**	**	
35-44	0.09	5.1		0.06 (b)	2.3	
45-54	**	**				
55-64	0.09	2.9		0.16	3.1	
65+	–0.08	–3.1		0.39	9.7	
3. **EDUCATION**			0.0101			
Less than HS	**	**		na	na	
HS Grad	0.21	8.9		na	na	
Some College	0.50	21.1		na	na	
College Grad	0.78	32.7		na	na	
4. **POVERTY STATUS**			0.0002			
Non-Poor	**	**		na	na	
Poor	–0.14	–5.4		na	na	
5. **REGION OF DESTINATION**			0.0137			0.0129
Different from Origin	**	**		**	**	
Same as Origin	–0.62	–42.4		0.61	22.1	
6. **TYPE OF ORIGIN**			0.0013			0.0055
High Immigration Area	0.14	9.2		–0.25	–9.4	
High Domestic Migration Area	**	**		**	**	
Other Metro Area	–0.14	–5.6		–0.65	–13.7	

(a) Marginal contribution to the Rho-Square statistic indicates the relative explanatory power of the variable.
(b) Pertains to 35-54 age category.
*** reference category.   na = not included in model.*

The left equation in Table 7 shows coefficients associated with selecting a metropolitan (as opposed to a nonmetropolitan) destination. These results make plain that education attainment, with a contribution to Rho-squared of 0.0101, is the most important of all of the demographic variables discussed.[5] In the context of other demographic attributes, persons with some college education and college graduates are far more likely to select a metropolitan destination. The next most important variable is race-ethnicity, which shows that Whites are less prone to select a metropolitan destination than is any other group. The other two demographic attributes are not strong in terms of their explanatory power, but do suggest that the elderly are the least prone to select a metropolitan destination, as are the poor.

Of the two geographic attributes, "Same as Origin" is much more important than the dummy variables representing the "Types of Origins." The negative coefficient of "Same as Origin" implies that the out-migrants who select a destination within the same region as the origin, and hence have a relatively short moving distance, are more likely to be nonmetropolitanward migrants. The opposite coefficients of "High Immigration Area" and "Other Metro Area" imply that relative to the out-migrants from high domestic migration areas, those from high immigration areas are more prone to go to metropolitan destinations, whereas those from other metropolitan areas are less likely to do so, holding the demographic attributes constant. While this may appear to be at odds with our overall hypothesis, this is not the case. Our hypothesis of a "flight" profile for metropolitan out-migrants has more to do with the demographic attributes of movers, than with any particular place effects. In other words, we already know that migrants with less education and below the poverty line are most prone to leave high immigration metropolitan areas because of their strong "push" effects on these groups (Liaw and

Frey 1996; Frey and Liaw, forthcoming). This analysis tells us that these migrants are also most prone to select nonmetropolitan destinations.

The equation on the right side of Table 7 allows us to address the second question: what demographic attributes are associated with selecting a fast-growing nonmetropolitan destination, versus another nonmetropolitan destination? The coefficients and their associated t-ratios in the table make plain that age and race are two significant factors in determining whether nonmetropolitan-ward migrants select "fast-growing" or "other" counties. Clearly, Blacks and Hispanics are less likely to select "fast-growing" counties than are Whites and Asians (although Asians who select a nonmetropolitan destination, to begin with, are small in number). Similarly, persons aged 55 to 64, and especially 65+, are more likely to select fast-growing nonmetropolitan destinations than are those in other age groups. This is consistent with individual metropolitan statistics in Table 6. When race and age are controlled, neither education nor poverty status makes an important difference in selecting fast-growing versus other nonmetropolitan counties (although the omission of persons under age 25 from this multivariate analysis may serve to reduce the role of the poverty status variable).

The positive and highly significant coefficient of "Same as Origin" suggests that out-migrants from nearby metropolitan origins contribute much more to the growth of the fast-growing nonmetropolitan areas than to the growth of other nonmetropolitan areas. The negative and also highly significant coefficients of "High Immigration Area" and "Other Metro Area" imply that the nonmetropolitan-ward out-migrants from high immigration areas are less likely to select fast-growing nonmetropolitan areas than are those from high domestic in-migration areas but are more prone to do so than those from other metropolitan areas, holding all demographic variables constant.

In summary, the above results tend to confirm the view that the kinds of people associated with the new "flight" from high immigration metropolitan areas are also prone to select nonmetropolitan destinations. This is especially the case for Whites with lower education attainment, and those with children. Our additional analyses suggest that these "flight" out-migrants go to both fast-growing and other nonmetropolitan destinations. In contrast, the White pre-retired and retired populations are most prone to select fast-growing nonmetropolitan destinations.

The View from Nonmetropolitan Areas

Because we are interested in assessing the impact of the new "flight" population from high immigration areas on nonmetropolitan populations, it is useful to examine the relative contributions of these migrants to nonmetropolitan populations in comparison to those from other origins. We have shown that the recent 1990–1996 migration estimates suggest a mirror image of migration patterns between high immigration metropolitan area population losses and nonmetropolitan migration gains (Figs. 3 and 4). Yet, these post–1990 census statistics do not permit an assessment of the actual streams underlying these aggregate patterns.

Thus, we must rely on the 1985–1990 migration statistics of the 1990 census to gain some sense of how high immigration metropolitan areas fare vis-à-vis other kinds of areas in contributing to nonmetropolitan area gains. It is important, again, to emphasize that noticeable nonmetropolitan area gains only became evident in the 1990s. As a consequence this 1985–90 period analysis can be only suggestive of trends which continued or accelerated over the subsequent period. In Table 8, we show net migration exchanges (in-migrants *minus* out-migrants) vis-à-vis various areas as they affect nonmetropolitan populations. We evaluate these exchanges, separately, for the group of fast-growing nonmetropolitan counties and all other nonmetropolitan counties. We also look at these two categories of counties within four census regions. We wish to identify just how much of each nonmetropolitan county grouping's gains are attributable to positive exchanges from high immigration metropolitan areas in contrast to exchanges from other sources. A relatively large positive contribution from high immigration areas would suggest that this is a major source in fueling the new nonmetropolitan gains.

The data in Table 8 show that even in the late 1980s, exchanges with high immigration metropolitan areas contributed significantly to nonmetropolitan counties in all regions and in both fast-growing and "other" categories. About half

Table 8 *Domestic Migration Contributions to Nonmetropolitan Change for "Fast Growing" and other Nonmetropolitan Areas by Region, 1985–90*

	Net Migration Exchanges with Origins*				
	High Immigrant Metros	Other Large Metros	Small Metros	Nonmetros	Total
Total					
Fast Growing Nonmetro	296,176	165,746	107,800	40,950	610,672
Other Nonmetro	98,225	–319,643	–608,920	–40,950	–871,288
Northeast and Midwest Region					
Fast Growing Nonmetro	69,041	57,193	4,284	3,071	133,589
Other Nonmetro	88,781	–133,446	–269,453	–22,467	–336,585
South Region					
Fast Growing Nonmetro	146,948	99,309	87,900	28,101	362,258
Other Nonmetro	1,926	–87,058	–250,624	–15,654	–351,410
West Region					
Fast Growing Nonmetro	80,187	9,244	15,616	9,778	114,825
Other Nonmetro	7,518	–99,139	–88,843	–2,829	–183,293

Source: Special U.S. Census Migration Tabulations compiled by the authors.

* *In-Migration from area minus out-migration to areas*

** *Metro areas that are net high immigration areas with populations of one million +.*

of all the net migration gains shown for fast-growing nonmetropolitan counties (296,000 of 610,000) can be attributed to gains from high immigration areas. Among "other" nonmetropolitan counties, high immigration areas contributed to the only *positive* exchange since these counties lost population in their exchanges with other large metropolitan areas, small metropolitan areas, and other nonmetropolitan areas. The contribution of migrants from high immigration areas is especially significant in the West region. Fast-growing nonmetropolitan counties in the West region gained 114,000 domestic migrants, of which 80,000 came from high immigration areas. Of all the fast-growing nonmetropolitan regions, the West had really not "taken off" in the late 1980s, so this provides just a small indication of the kind of contribution that high immigration metropolitan areas are probably making to the higher nonmetropolitan gains in West region in the 1990s.

The detailed 1990 census statistics also permit us to look at the demographic attributes of migrants associated with these different exchanges. In Table 9, we compare attributes associated with the U.S. fast-growing nonmetropolitan areas, and other nonmetropolitan areas. The gains to fast-growing areas from high immigration metropolitan areas (as with other sources) are largely White, native born, and about one-third aged 55 and over. It is clear that the stereotypic "retirement rural migrant"—in contrast to the "flight" population—is highly represented in these contributions. The poverty population, in contrast, makes a smaller contribution.

High immigration metropolitan areas appear to be making a unique contribution to "other" nonmetropolitan areas. Unlike other large metropolitan areas, small metropolitan areas, and nonmetropolitan areas, high immigration metropolitan areas are contributing positive gains to the White and Black native-born populations of "other" nonmetropolitan areas. Much more so than exchanges from other origins, high immigration areas are contributing to gains in other nonmetropolitan areas' child populations, elderly populations, low-skilled and poverty populations. This is significant because it suggests that the unique "flight" out-migrants from high immigration metropolitan areas are also making a unique contribution to nonmetropolitan counties that would otherwise not be participating in the new rural revival.

In reviewing these statistics for the 1985–90 period, one should bear in mind that our earlier results indicated a fairly persistent net out-flow of the "flight" population—generally White, low skilled, lower income—from high immigration metropolitan areas over *both the late 1980s and the early 1990s* (Frey 1996; Frey and Liaw, forthcoming). Therefore, results here are suggestive that this population continues to contribute to faster growing and especially "other" nonmetropolitan areas in the 1990s. However, other population groups (e.g., professionals, new labor force entrants) whose migration patterns are more greatly influenced by period shifts in the spatial economy (e.g., such as the defense cutbacks in California) were out-migrating from metropolitan areas to a much greater extent in

Table 9 *"Fast Growing" and Other Nonmetropolitan Areas: Migration Exchanges with Other Areas for Selected Population Subgroups, 1985–90*

	Migration Exchanges with:				
Population Group	High Immigration Metros	Other Large Metros	Small Metros	Nonmetros	Total
	FAST GROWING NONMETRO AREAS				
Total	296,176	165,746	107,800	40,950	610,672
Foreign Born	14,733	2,768	3,770	1,037	22,308
Native Born	281,443	162,978	104,030	39,913	588,364
Native Whites	246,617	146,509	92,839	37,891	523,856
Native Blacks	21,856	12,725	3,610	395	38,586
NATIVE BORN WHITES					
Age 0-14	34,924	19,243	20,273	5,954	80,394
Age 15-34	60,538	27,592	6,988	13,213	108,331
Age 35-54	64,070	40,974	36,497	9,961	151,502
Age 55+	87,085	58,700	29,081	8,763	183,629
Poverty	42,810	43,893	22,169	5,337	114,209
Non Poverty	203,807	102,616	70,670	32,554	409,647
High School or less**	103,344	80,952	60,708	13,542	258,546
Some College or more**	75,108	17,950	17,619	11,611	122,288
	OTHER NONMETRO AREAS				
Total	98,225	–319,643	–608,920	–40,950	–871,288
Foreign Born	–439	–14,382	–16,749	–1,037	–32,607
Native Born	98,664	–305,261	–592,171	–39,913	–838,681
Native Whites	81,751	–256,267	–497,581	–37,891	–709,988
Native Blacks	17,745	–27,568	–57,642	–395	–67,860
NATIVE BORN WHITES:					
Age 0-14	21,626	–28,220	–39,068	–5,954	–51,616
Age 15-34	–33,037	–192,034	–352,318	–13,213	–590,602
Age 35-54	38,470	–43,809	–69,451	–9,961	–84,751
Age 55+	54,692	7,796	–36,744	–8,763	16,981
Poverty	51,150	22,170	–53,296	–5,337	14,687
Non Poverty	30,601	–278,437	–444,285	–32,554	–724,675
High School or less**	74,893	–4,301	–43,528	–13,542	13,522
Some College or more**	574	–134,223	–152,217	–11,611	–297,477

Source: Special U.S Census Migration Tabulations compiled by the authors.
**Age 25 and above

the early 1990s than during the 1985–1990 period. It is likely that the magnitudes and patterns of contributions that these populations are making to nonmetropolitan gains in the 1990s will differ from those discussed here.

Conclusion

Is the unique out-migration "flight" from high immigration metropolitan areas that we identified in earlier research contributing to the new rural revival? The evidence presented in this article suggests that this is true. Our analysis of the 1996 Current Population Survey, supplemented with the detailed 1990 census data, suggests that the same kinds of people, Whites without college education, with children, and with lower incomes, participating in the out-migration "flight" are also most likely to select nonmetropolitan destinations. These migrants, more than the stereotypic rural retiree migrants, are also more likely to go to slower-growing nonmetropolitan areas that are not typically associated with high amenities, recreation, or retirement magnets. In this respect, these out-migrants from high immigration metropolitan areas are contributing to population gains in the rural areas that may otherwise be declining.

A significant segment of the metropolitan to nonmetropolitan movement from high immigration metropolitan areas, as well as other kinds of metropolitan areas, are the pre-elderly and elderly retiree populations. Their strong tendency to move to the fast-growing nonmetropolitan areas in the Mountain and in the Southeast states are also responsible for the broad new surge in nonmetropolitan growth. The elderly contribution is likely to be even more important as more baby boomers enter their fifties and sixties. Still, the more broad-based type of "flight" from high immigration metropolitan areas and probably to a lesser extent from other places represents a somewhat newer pattern of dispersal that may have more permanency than the movements that spawned the rural renaissance of the 1970s.

We have used the term "flight" population in this article because we were examining the destinations of a unique demographic group which our previous research suggested was leaving high immigration metropolitan areas (Frey 1996; Frey and Liaw, forthcoming). The characteristics of this population resemble, to a large degree, the population that participated in the "White flight" to the suburbs in the 1950s and 1960s (Taeuber and Taeuber 1965; Massey and Denton 1993). We do not know for certain the motivations of these new metropolitan out-migrants. Yet, the fact that their demographic attributes resemble suburbanites who might normally make a local move, and that they show a greater than average tendency to select nonmetropolitan areas, suggests that there is a lifestyle as well as an economic motivation for their movement. In the past, migration literature made a clear distinction between local residential mobility on the one hand, and long distance (inter-labor market) migration on the other, with respect to motivations and demographic selectivity (Speare et al. 1975; Clark 1986; Long 1988; Gober 1993). The former involves community concerns about housing costs, local taxes, school quality, crime, and population composition. The latter is more concerned with regional or metropolitan-wide economic and labor market issues, and in some cases, climate and amenities. The movement, identified here, would appear to have some elements of each. New advances in telecommunications, the portability of jobs, and the diffusion of a wide range of consumer goods and services may be leading to a hybrid type of movement that provides an alternative for middle class residents who appear to be fleeing entire metropolitan areas. While the term "White flight" as a metaphor has already been established to characterize movement to the suburbs, it appears also an appropriate term for the phenomenon identified here.

A related trend worth mentioning is the race-ethnic selectivity associated with this movement. Almost all of our comparisons show this out-movement to select predominantly on native-born, non-Hispanic Whites. Our multivariate analysis indicates that Whites are most likely to select nonmetropolitan locations. While some of the metropolitan out-migrants may be responding to immigrant-induced competition for jobs and other public services, the dispersal also appears to involve predominantly Whites, and to a much smaller degree Blacks, who are culturally very different from the dominant groups (Hispanics and Asians) of the new immigration. This dispersal is operating at the same time that large waves of the new immigrants continue to concentrate primarily in a few high immigration metropolitan areas, resulting in greater race and ethnic diversity in these areas (right side of Table 1). The original "White flight" of the 1950s and 1960s tended to create sharp demographic gaps between inner cities and their suburbs with respect to race-ethnicity, as well as class and age structures. Diverging patterns of immigration and new, more dispersed domestic migration hold the potential for creating similar demographic gaps, but on a broader regional scale. ■

Notes

[1] These data for net international migration and net domestic migration were prepared by the U.S. Bureau of the Census as part of the federal-state cooperative population estimates series developed jointly by the U.S. Bureau of the Census and the states. They are available as electronic product CO-96-8 "Estimates of the Population of Counties and Demographic Components of Population Change Annual Time Series, July 1, 1990 to July 1, 1996." Domestic in-migration and out-migration consist of moves where both the origins and destinations are within the United States (excluding Puerto Rico). International migration is the difference between migration from outside the United States (immigration) and

migration from the area to outside the United States (emigration) during the period. For purposes of these population estimates, the geographic extent of the United States is defined as excluding Puerto Rico. Net domestic migration is the difference between domestic in-migration to an area, and domestic out-migration from it during the period. Because the 1990–1996 estimates for net domestic migration do not permit separation of foreign-born and native-born domestic migrants, our net migration results include both groups. However, a separate analysis of 1985–1990 net migration for both native- and foreign-born residents indicates that overall net domestic migration is dominated by the domestic migration of native-born residents.

[2] High immigration metropolitan areas are not the only individual metro areas that lost domestic migrants, but they account for seven of the nine biggest losing metropolitan areas including the four largest: Los Angeles, New York, Chicago, and San Francisco.

[3] These data were prepared from the Public Use Micro file of the March 1996 supplement of the Current Population Survey, obtained from the U.S. Census Bureau. Tabulations pertain to inter-state native-born migrants over the 1995–1996 period who reported a 1995 residence in a metropolitan area. This tabulation of inter-state migrants was necessary because it was not possible to identify inter-metropolitan moves directly from the PUM file.

[4] These statistics were prepared from a special tabulation of the full 16.7% migration sample of the 1990 U.S. census, weighted up to the total population. The migration data were based on tabulations of the "residence 5-years ago question." Net domestic migration pertains to in-migration to an area from the rest of the U.S. minus out-migration from the area to the rest of the U.S. for the native-born population aged 5 and above in 1990.

[5] The relative contribution of an explanation associated with a variable in the model is determined by its marginal contribution to the Rho-square statistic for the model. This is determined by running the model without the variable and observing the resulting change in Rho-square. The Rho-square statistic specifies the model's goodness of fit (see Liaw and Frey 1996 for a more detailed discussion). In the first model of Table 7, the variable "region of destination" shows the largest marginal contribution to Rho-square at 0.0137. This variable is included as a geographical structural measure. Of the demographic variables in the model, "education" shows the highest marginal contribution to Rho-square at 0.0101.

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